

Date:

Grade 7: Math
2.7 Variables - Solving Equations

- An solution to an equation is the value of the variables for which the equation holds true.
- **Example 1:** $50 + t = 5$
- **Example 2:** $6n = 12$
- **Example 3:** $2 + 3m = 5$
- **Example 4:** $6k - 1 = 19$
- **Example 5:** $1 - \frac{x}{4} = 7$

1. Katie has some pencils. Sofia gives Katie 5 more pencils. If Katie has 20 pencils now, how many pencils did Katie have?
2. Eli's age is one more than half his dad's age. If the sum of their ages is 64, how old are they?
3. The sum of three consecutive odd integers is 99. What are the numbers?
4. Ms. Philip goes to the store and buy five pens and a notebook. The notebook cost \$3.50 and she pays \$11 at the counter. How much does a pen cost?
5. Matthew scored 96% on a quiz. If his score on the quiz was 47, what was the maximum score on that quiz?
6. Three friends Al, Ben and Carl take part in a 500 m relay race. Al covers five more metres than Ben. Ben covers twice the distance as Carl. How much distance did each of the cover?
7. Two years from now Michael's dad's age will be four times what his age was ten years ago. How old is Michael's dad?
8. The sum of three consecutive even integers is 84. Find the numbers.
9. The difference of two number is 60. If the larger number is three times the smaller number, what are the numbers?
10. The length of the rectangle is three more than its width. If the perimeter of the shape is 30 cm what are the dimension of the rectangle?
11. Soren buys some pencils worth \$0.50 each and some books worth \$2.50 each. If Soren spends a total of \$22 at the store. Write an equation to represent this situation. Find out how many pencils he bought 7 books.
12. Mr. T wishes to buy 300 TPS hats for all students of TPS. If each hat costs \$8.50 write an equation to represent this situation. How much would it cost Mr. T? How much more will it cost if he decides to buy 450 hats?

- **Homework:** Textbook page 396 #1, 2, 5, 6 and complete this handout.